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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JUTTA LINDERMANN

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Appeal 2008-3138  
Application 10/825,725  
Technology Center 1700

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Decided: June 30, 2008

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Before EDWARD C. KIMLIN, THOMAS A. WALTZ , and  
PETER F. KRATZ, *Administrative Patent Judges*.

KRATZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the Examiner's final rejection of claims 1-21. We have jurisdiction pursuant to 35 U.S.C. § 6.



Appellant's invention is directed to a (meth)acrylate resin comprising specified amounts of (a) (meth)acrylate, (b) polymer soluble in (meth)acrylate, (c) paraffin, (d) phosphoric ester adhesion promoter, and optionally (e) hydroxy(meth)acrylate. Appellant discloses that the resin can be used, *inter alia*, for sealing pipe leaks via a repair technique that operates on an inside pipe surface at the leak location (Specification ¶¶ 0005- 0009). Claim 1 is illustrative and reproduced below:

1. A (meth)acrylate resin comprising:  
20-85% by weight (meth)acrylate;  
10-40% by weight of a polymer soluble in (meth)acrylate;  
0.1-2% by weight paraffin;  
0-50% by weight hydroxyl(meth)acrylate; and  
0.1-2% by weight adhesion promoter, wherein the adhesion promoter is a phosphoric ester.

The Examiner relies on the following prior art references as evidence in rejecting the appealed claims:

Borden	6,211,259	Apr. 3, 2001
Makino	6,552,130	Apr. 22, 2003

Claims 1-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Makino in view of Borden.

We affirm the rejection of claims 1-13, 16-18, 20, and 21. We reverse as to claims 14, 15, and 19. Therefore, the decision of the Examiner is affirmed-in-part. Our reasoning follows.

Under 35 U.S.C. § 103, the factual inquiry into obviousness requires a determination of: (1) the scope and content of the prior art; (2) the



differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) any secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). “[A]nalysis [of whether the subject matter of a claim is obvious] need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. Teleflex, Inc.*, 127 S. Ct. 1727, 1741 (2007). See *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1361 (Fed. Cir. 2006) (“The motivation need not be found in the references sought to be combined, but may be found in any number of sources, including common knowledge, the prior art as a whole, or the nature of the problem itself.”). The analysis supporting obviousness, however, should be made explicit and should “identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements” in the manner claimed. *KSR*, 127 S. Ct. at 1741.

Claims 1-13, 16, 18, 20, and 21 are argued together as a group. Accordingly, we select claim 1 as the representative claim for this grouping. As for the remaining rejected claims 14, 15, 17 and 19, we consider these dependent claims separately to the extent that they have been separately argued by Appellant.

We start with representative claim 1 and the dependent claims grouped together therewith. Claim 1 is the sole independent claim on appeal.

Makino discloses a (meth)acrylic acid ester resin composition that is said to be useful as a covering material in civil engineering and construction



applications (Abs.). Appellant does not dispute the Examiner's determination that Makino's resin composition includes, *inter alia*, components corresponding to Appellant's components (a), (b), and (c) (Ans. 3; Br.9-11), as identified above. Nor does Appellant assert that the relative amounts of these components, as claimed, are not taught or suggested by Makino. Component (e), as identified above, is optional in that a zero amount of this hydroxy(meth)acrylate component is included within the scope of representative claim 1. Concerning the adhesion promoter component (d), the Examiner maintains that Makino taken together with Borden teaches or suggests the use of a phosphoric acid ester (component (d)) as part of the (meth)acrylic acid ester resin composition thereof (Ans. 7-9).

We are in full agreement with the Examiner's determination that the applied references render the subject matter required by representative claim 1 *prima facie* obvious.

Appellant maintains that Makino's composition requires initiator component(s), such as a (mercapto group and carboxyl group)-containing compound with or without an organic amine, or a combination of an organic amine and a radical trapping agent, which initiators cannot be excluded from Makino's resin (Br. 9-10). Appellant asserts that the claimed composition does not require these initiator components and that the elimination of these components would be taught away from and/or not suggested by a combination of Makino and Borden (Br. 10-18).

This argument is not persuasive of any error in the Examiner's obviousness rejection of representative claim 1 because claim 1 employs the transition word "comprising" to introduce the listed components of the



claimed resin, which transitional wording leaves the claim open to the inclusion of additional components, including the initiator components of Makino.

Also, Appellant argues that there is a lack of suggestion to use the claimed adhesion promoter comprising a phosphoric ester based on the Examiner's combination of Borden with Makino because Borden uses such a component in a polyurethane resin formation composition (B-side) whereas there is no reasonable suggestion that such a component would be compatible with and useful as an adhesion promoter in the acrylic resin composition of Makino. We are not persuaded of reversible error in the Examiner's rejection by this argument. As pointed out by the Examiner. Borden explains that adhesion promoters (coupling agents), such as phosphoric esters, promote adhesion with acrylic materials, which is the subject matter of the resin of Makino (Ans. 8-9; Borden, col. 16, ll.8-38). Indeed, we note that Makino describes several phosphonic esters, such as tributyl phosphate, as being useful in Makino's acrylic resin composition as curing stabilizers (Makino, col. 10, ll. 9-13). Appellant has not generated any persuasive argument, much less evidence in support thereof, which establishes non-obviousness on the basis of the claimed amounts of the recited components, which claimed amounts are found to be reasonably taught or suggested to one of ordinary skill in the art by the applied references as put forth by the Examiner in the obviousness rejection before us.

On this record, we affirm the Examiner's obviousness rejection of representative claim 1 and the dependent claims that are grouped together therewith.



As for separately argued dependent claim 17, we agree with the Examiner that the applied references, particularly Makino, would have taught or suggested a resin composition including an accelerator and/or an initiator, as additionally required by claim 17. See comparative example 6 of Makino, as seemingly referred to by the Examiner, wherein a resin composition, like the claimed composition, employs dimethyl p-toluidine (DMPT), one of Appellant's accelerator choices, and benzoyl peroxide (BPO), which is Appellant's claimed initiator. While we recognize that this example was reported as displaying some yellowing, Appellant has not fairly explained why one of ordinary skill in the art would be completely discouraged from using either a known accelerator or a known initiator as claim 17 requires, where yellowing is not a concern. Indeed, Makino expressly teaches that the organic amine can be a toluidine, such as N,N-dimethyl-p-toluidine (col. 4, ll. 48-57). The later disclosure of Makino renders Appellant's teaching away argument obsolescent in that claim 17 does not require that the initiator is benzoyl peroxide given the "and/or" phrase preceding the benzoyl peroxide initiator option.

Accordingly, we shall affirm the Examiner's obviousness rejection of claim 17.

Our disposition of the Examiner's rejection of separately argued claims 14, 15 and 19 is another matter. Here, the latter claims require the inclusion of either a combination of specified ingredients (claims 14 and 15) or a specified ingredient (claim 19) in the claimed composition, which Appellant has urged as not being taught or suggested by the applied references (Br. 19-21). The Examiner offers no specific rejection presentation or reply to the separate argument against the rejection of claim



19 and has not identified where, in the applied references, the specifically claimed methacryloyl oxyethyl phosphate (the only adhesion promoter compound that is specifically identified by Appellant in their Specification (§ 0026)) is disclosed or particularly suggested. This particular phosphoric ester component of the resin is described as contributing to the pipe-sealing functionality of Appellant's resin. *Id.*

Moreover, with regard to separately argued dependent claims 14 and 15, the Examiner has not identified where, in the applied references, the specific co-stabilizer of claim 14 or claim 15 is found. The mere assertion that such a stabilizer is available from major additive suppliers (Ans. 6) coupled with the assertion that the composition of Makino could benefit from such an additive is not an adequate rebuttal to Appellant's argument that evidentiary support for the claimed combination of specific stabilizer with such a co-stabilizer is lacking.

After all, the Examiner bears the initial burden, on review of prior art or on any other ground, of presenting a prima facie case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). The Examiner has not met this burden with respect to claims 14, 15, and 19.

Here, for reasons pointed out by the Appellant, the Examiner has not persuasively articulated why one of ordinary skill in the art would have arrived at the subject matter of claims 14, 15 and 19 based on the combined teachings of the applied references.

Rejections based on § 103(a) must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. *See In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968). In other words, the Examiner's basis for



the rejection falls short of identifying an adequate factual basis and accompanying rationale explaining what would have led an ordinarily skilled artisan to combine selected features from each reference in a way that would have resulted in a resin corresponding to the claimed (meth)acrylate resin of claims 14, 15, and 19. *See KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1741 (2007).

### CONCLUSION

The Examiner's decision to reject claims 1-13, 16-18, 20, and 21 under 35 U.S.C. § 103(a) as being unpatentable over Makino in view of Borden is affirmed. The Examiner's decision to reject claims 14, 15, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Makino in view of Borden is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

### AFFIRMED-IN-PART

PL Initial:  
sld



Appeal 2008-3138  
Application 10/825,725

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